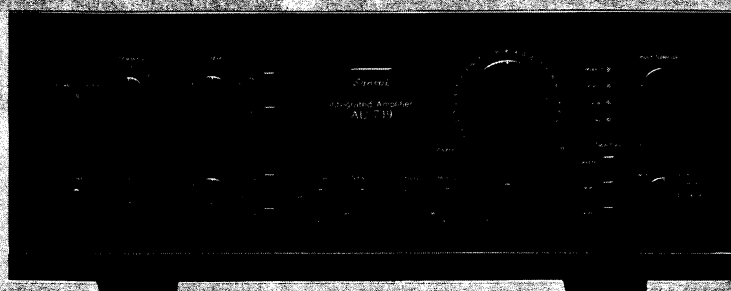


SERVICE MANUAL

INTEGRATED STEREO AMPLIFIER

SANSUI AU-719



Sansui

SANSUI ELECTRIC CO., LTD.

SPECIFICATIONS

Power output

Min. RMS, both channels driven, from 10 to 20,000 Hz,
with no more than 0.015 % total harmonic distortion
90 watts per channel into 8 ohms

Load Impedance 8 ohms

Total harmonic distortion

less than 0.015 % at or below rated
min. RMS power output

Intermodulation distortion (70 Hz : 7 kHz = 4:1 SMPTE

method) less than 0.015 % at or below rated
min. RMS power output

Rise time 0.5 μ sec

Slew rate ± 170 V/ μ sec

Frequency response (at 1 watt)

DC to 400,000 Hz, +0 dB, -3 dB

Damping factor (1 kHz, both channels driven)

110 into 8 ohms

RIAA curve deviation (PHONO, 20 Hz to 20 kHz)

+0.2 dB, -0.2 dB

Input sensitivity and impedance (1 kHz, for rated power
output)

PHONO-1, 2 2.5 mV/47 kilohms

(Max. input capability; 230 mV at 1 kHz, less than
0.01 % total harmonic distortion)

AUX, TUNER, TAPE PLAY

. 200 mV/47 kilohms

Output level and impedance (1,000 Hz)

TAPE REC 200 mV into 47 kilohms/600 ohms

Channel separation (1 kHz, at rated power output)

PHONO-1, 2 65 dB

AUX, TUNER, TAPE PLAY

. 70 dB

Hum and noise (short-circuit, A-network)

PHONO-1, 2 88 dB

AUX, TUNER, TAPE PLAY

. 100 dB

Controls

BASS ± 10 dB (50 Hz)

Tone selector 150 Hz, 300 Hz

TREBLE ± 10 dB (15 kHz)

Tone selector 3 kHz, 6 kHz

SUBSONIC -3 dB (16 Hz), 6 dB/oct

MUTING -20 dB

LOUDNESS (VOLUME control: -30 dB position)

. 10 dB at 50 Hz

. 6 dB at 10 kHz

Power requirements

Power voltage 100, 120, 220, 240 V (50/60 Hz)

For U.S.A. & Canada

. 120 V (60 Hz)

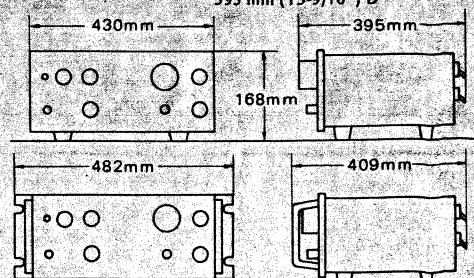
Power consumption

Rated consumption 450 watts 530 VA

Dimensions 430 mm (16-15/16") W

168 mm (6-5/8") H

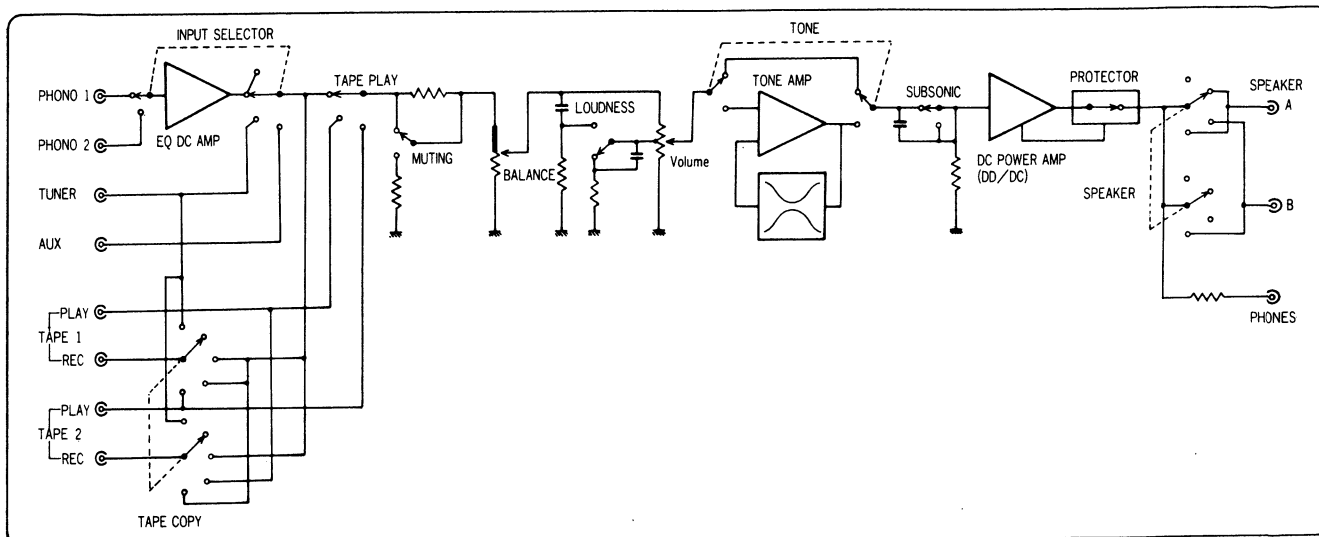
395 mm (15-9/16") D



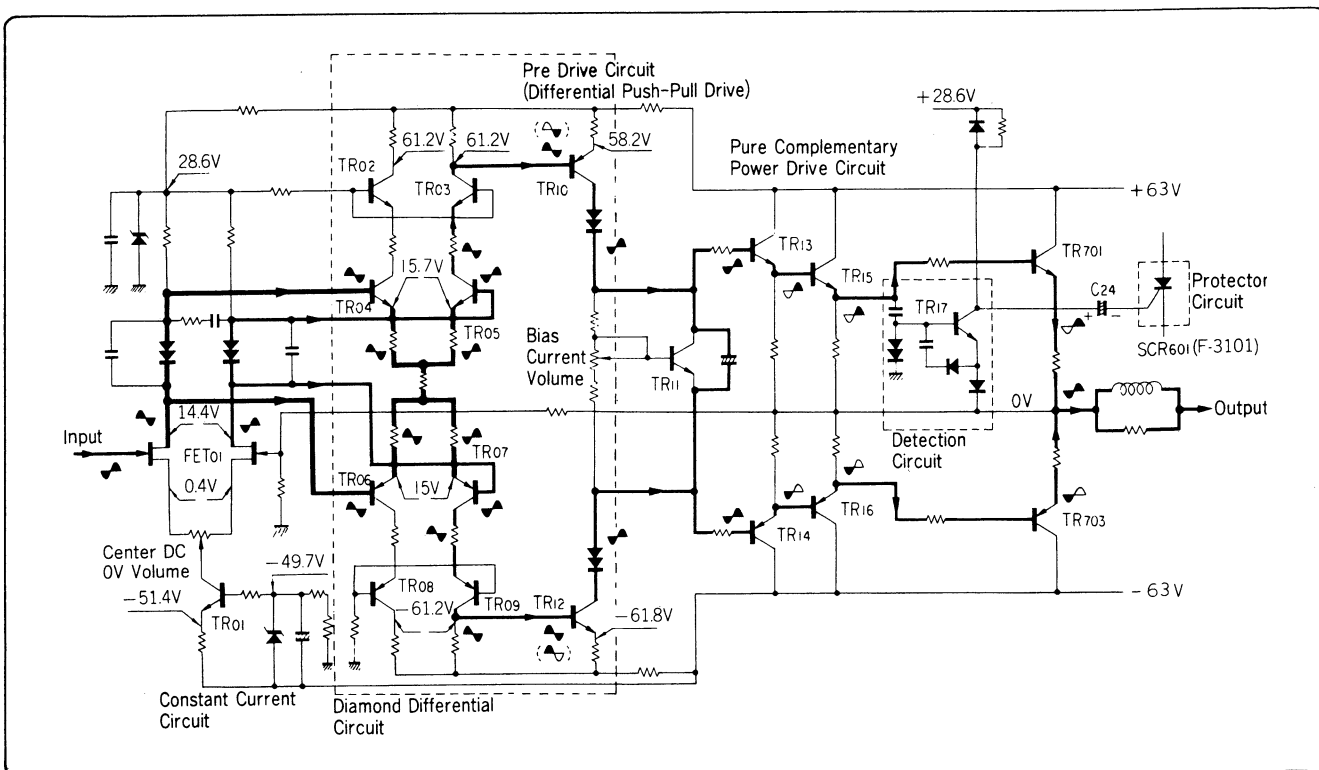
Weight 16.0 kg (35.3 lbs) net
17.7 kg (39.0 lbs) packed

- * Design and specifications subject to changes without notice for improvements.
- * In order to simplify the explanation illustrations may sometimes differ from the originals.

1. BLOCK DIAGRAM



2. OPERATION BLOCK DIAGRAM OF DRIVER STAGE



3. ADJUSTMENTS

- Notes: 1. Master Volume Minimum
2. Room Temperature 18°C ~ 28°C
(65°F ~ 83°F)
3. When replacing some parts or circuit board, refer to description in REMARKS.
4. For this adjustment, run the unit for more than 3 minutes after the power is switched ON.

3-1. Driver Circuit (F-2926, F-2927) Adjustment (See Fig. 3-1 & 3-2)

STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
1.	DC 0V Adj. L-ch	Speaker terminal (L-ch)	VR01 (L-ch) F-2926	DC 0V ± 5 mV	Before turning ON power switch, set VR01 to center position.
2.	DC 0V Adj. R-ch	Speaker terminal (R-ch)	VR01 (R-ch) F-2927		
3.	Bias current Adj. L-ch	Between emitters of power transistors, TR701 & TR703 (See Fig. 3-1)	VR02 (L-ch) F-2926	DC 23 mV ± 1 mV	• Before turning ON power switch, turn VR02 fully counterclockwise. This bias current adjustment converts current value into voltage by Ohm's law.
4.	Bias current Adj. R-ch	Between emitters of power transistors, TR702 & TR704 (See Fig. 3-1)	VR02 (R-ch) F-2927		

3-2. Equalizer (F-3095) Adjustment (See Fig. 3-3)

STEP	SUBJECT	MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
1.	DC 0V Adj. L-ch	Between GND & TP	VR01 (L-ch) F-3095	DC 0V ± 50 mV	Before turning ON power switch, set VR01 & VR02 to center position.
2.	DC 0V Adj. R-ch	Between GND & TP	VR02 (R-ch) F-3095		

Fig. 3-1 Driver Circuit Board (F-2926, F-2927)

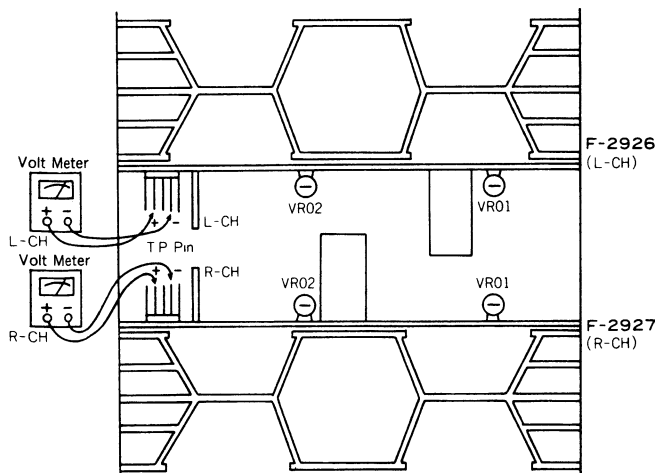


Fig. 3-3 Equalizer Circuit Board (F-3095)

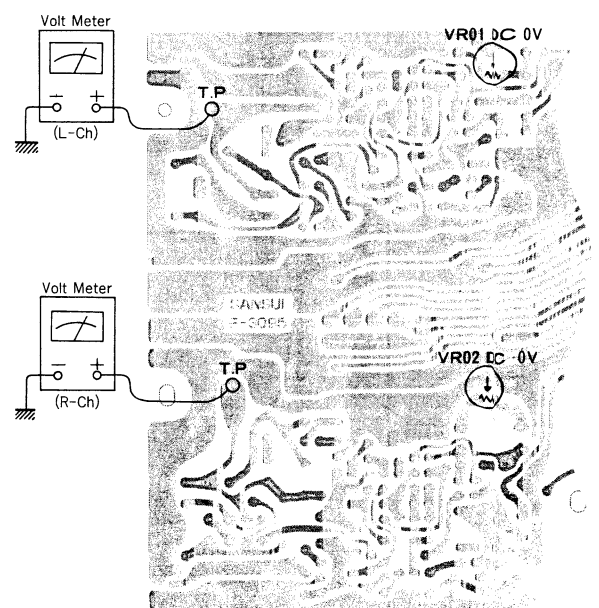
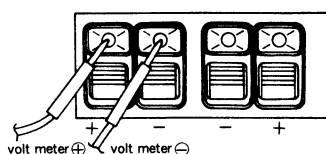


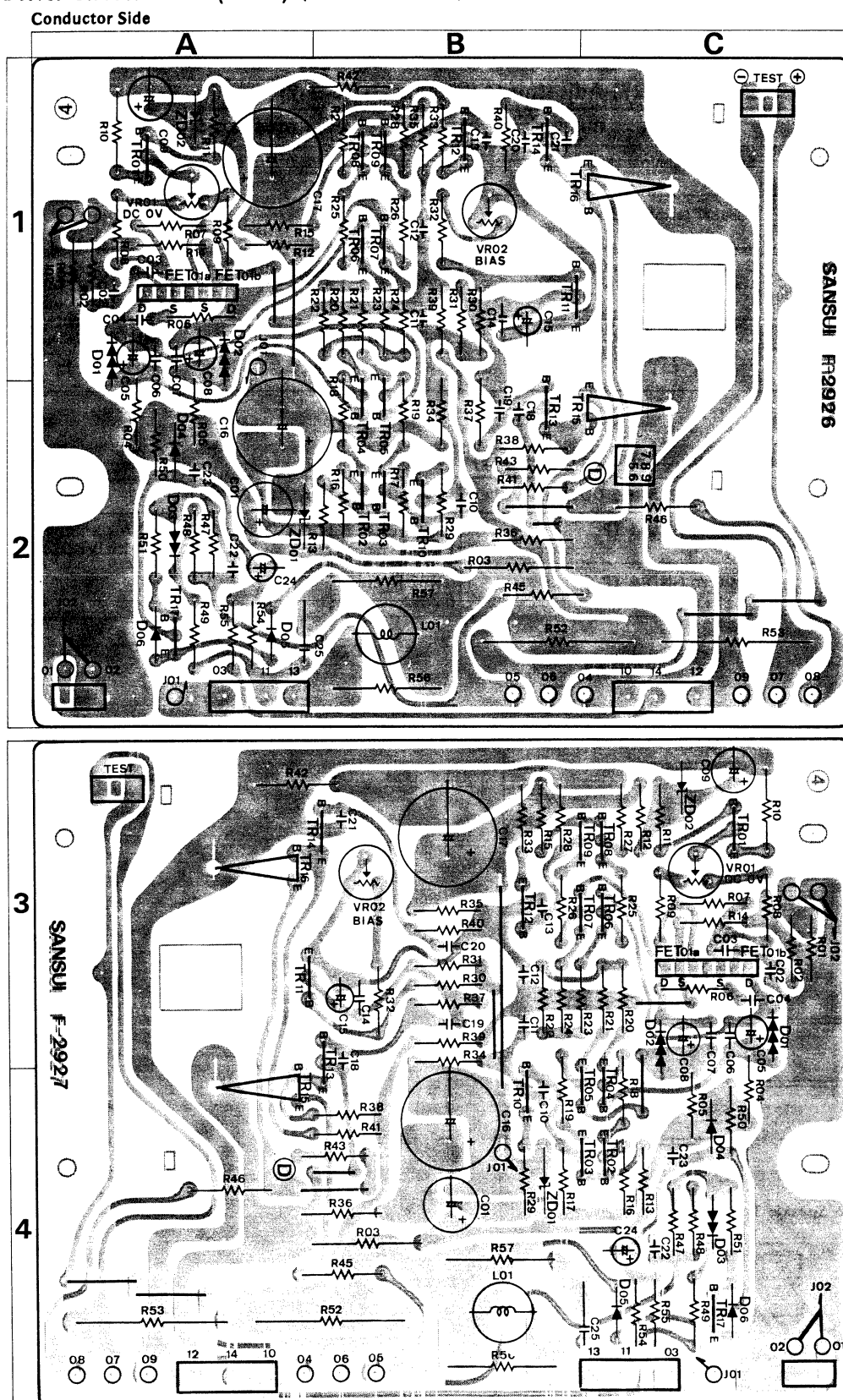
Fig. 3-2 Speaker Terminal



4. PARTS LOCATION & PARTS LIST

- 4-1. F-2926 Driver Circuit Board (L-CH) (Stock No. 7572351)
4-2. F-2927 Driver Circuit Board (R-CH) (Stock No. 7572361)

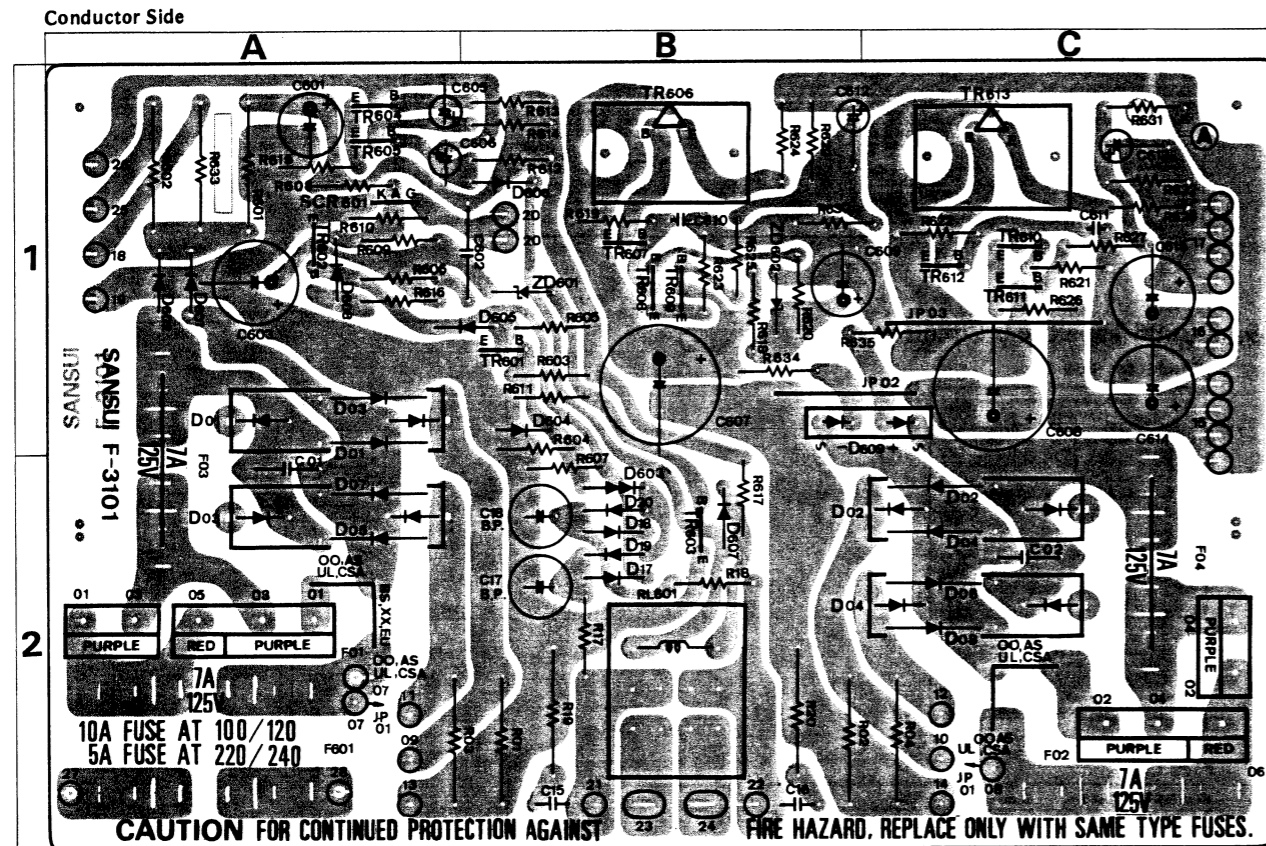
- Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the Common Parts List for capacitors & resistors which was appended previously to each Sansui Manual.



4-4. F-3095 Head Amp. Circuit Board (Stock No. 7551561)

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
•Transistor			F-2926 F-2927	•Diode			F-2926 F-2927				F-2926 F-2927
TR01	0306680, 1	2SC2071 B, V	1A 3C	D 01, 02	0340170	MV-103	1A 3C	R 03	0212182	1.8kΩ 2W N.I.R.	4B
TR02 ~ 05	0306740, 1	2SC1845 F, E	2B 4B, C	D 03	0340150	MV-12	2A 4C	R 04, 05	0231392	3.9kΩ 1/2W M.R.	4C
TR06 ~ 09	0301090, 1	2SA992 F, E	1B 3B, C	D 04	0310400	I3N34A	2A 4C	R 52, 53	0156140	0.33Ω 5W Ce.R.	4A, B
TR10	0301030, 1	2SA939 B, V	2B 4B	D 05, 06	0311180	1S2473D	1A 4C	R 56	0212109	1Ω 2W	4B
TR11	0309551, 2	2SC945 O, P	1B 3A					R 57	0212100	10Ω 2W	4B
TR12, 13	0306680, 1	2SC2071 B, V	1B, 2B 3B	•Zener Diode							
TR14	0301030, 1	2SA939 B, V	1B 3B	ZD01	0337190	RD-27F (B)	2A 4B	L 01	4290370	Filter Coil	4B
TR15	0306441, 2	2SD382 C, L	2C 4A	ZD02	0331630	RD13E B	1A 3C				
TR16	0303271, 2	2SB537 M, L	1C 3A	C 02	0622101	100pF 125V P.C.	1A 3C	VR01	1033570	Volume 100Ω B DC OV 1B	
TR17	0306740, 1	2SC1845 F, E	2A 4C	C 03	0623220	22pF 125V P.C.	1A 3C	VR02	1035290	Volume 470Ω B Bias	3B
				C 04	0622102	1000pF 125V P.C.	1A 3C				
•FET				C 10, 13	0669503	3pF 50V C.T.	2B, 1B 4B, 3B				
FET01	0370361 ~ 4	μPA68H-L1, L2, M1, M2	1A 3C	C 25	0681014	0.047μF 400V F.C.	2A 4B, C				

4-3. F-3101 Power Supply & Protector Circuit Board (Stock No. 7503471)

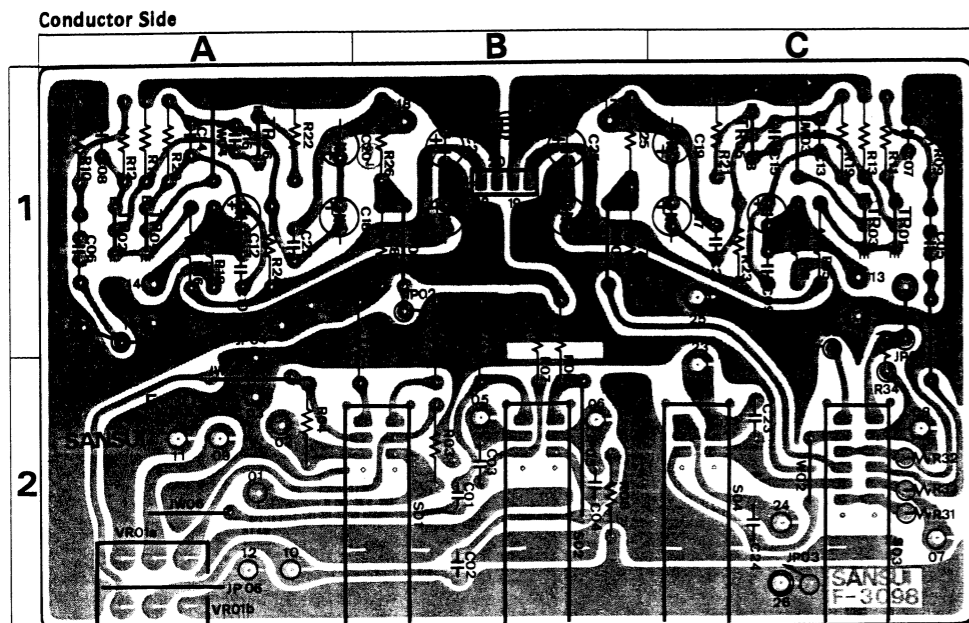


Parts List				Parts List				Parts List			
Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
•Transistor				D 17 ~ 20	0311160	1S2473D	2B	C 01, 02	0655103	10000pF 500V C.C.	2A, C
TR601 ~ 05	0305951, 2	2SC945 Q, P	1A, B, 2B	D 601, 602	0310350	10D2 (1S2227)	1A				
	(0308451, 2	2SD356 D, E		D 603	0340150	MV-12	2B	R 01 ~ 04	0212332	3.3kΩ 2W N.I.R.	2A, B, C
TR606	(0308611, 2	2SD357 D, E	1B	D 604 ~ 06	0311160	1S2473D	1B	R 19, 20	0212100	10Ω 2W N.I.R.	2B
TR607	0304070, 1	2SA726 F, G	1B	D 607	0310340	10D1 (1S2226)	2B	R 601	0212391	390Ω 2W N.I.R.	1A
TR608, 609	0306071, 2	2SC1313 G, H	1B	D 608	0311160	1S2473D	1A	R 602, 633	0212272	2.7kΩ 2W N.I.R.	1A
TR610, 611	0304070, 1	2SA726 F, G	1C	D 609	0311700	RB-152	1B, C				
TR612	0306071, 2	2SC1313 G, H	1C	•Zener Diode				RL601	1150480	Relay	2B
	(0303281, 2	2SB526 D, E		ZD601	0316390	RD6.2E B	1B		(0432290	5A 125V AC Fuse	
TR613	(0303441, 2	2SB527 D, E	1C	ZD602	0316310	RD13E B	1B	F 01	(0432290	7A 125V AC Fuse	2A
									(0434060	10A 250V AC Fuse	
•Diode				SCR 601	0350020	SCR 2SF656	1A				
D 01, 02	0311290	SS-3	1A, 2C								
D 03, 04	0311300	SS-3R	2A, 2C								

● Abbreviations

C.R.	Carbon Resistor	E.L.	Low Leak Electrolytic Capacitor
S.R.	Solid Resistor	E.B.	Bi-Polar Electrolytic Capacitor
Ca.R.	Cement Resistor	E.BL.	Low Leak Bi-Polar Electrolytic Capacitor
M.R.	Metal Film Resistor		
F.R.	Fusing Resistor	Ta.C.	Tantalum Capacitor
N.I.R.	Non-Inflammable Resistor	F.C.	Film Capacitor
C.C.	Ceramic Capacitor	M.P.	Metalized Paper Capacitor
C.T.	Ceramic Capacitor, Temperature Compensation	P.C.	Polystyrene Capacitor
E.C.	Electrolytic Capacitor	G.C.	Gimmic Capacitor

4-5. F-3098 Tone Control Circuit Board (Stock No. 7562941)



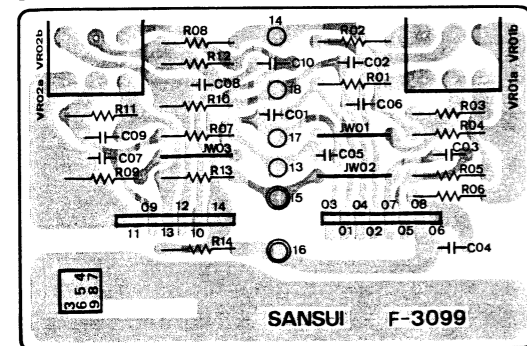
Parts List

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
• Transistor				S 01	1171770	Lever Switch, muting	2B
TR01 ~ 04	0306071	2SC1313 G, H	1A.1C	S 02	1171770	Lever Switch, loudness	2B
TR05, 06	0301090, 1	2SA992 F, E	1A.1C	S 03	1171800	Lever Switch, tone	2C
C 01, 02	0622511	510pF 125V P.C.	2B	S 04	1171770	Lever Switch, subsonic	2C
VR01	1015320, 1	Volume 250k Ω , balance	2A				

- The circuit boards, F-3099, F-3100, F-3094 & F-3096 are not supplied as the assembled, the individual parts on the circuit boards, however are provided for orders.

4-6. F-3099 Tone Circuit Board

Conductor Side

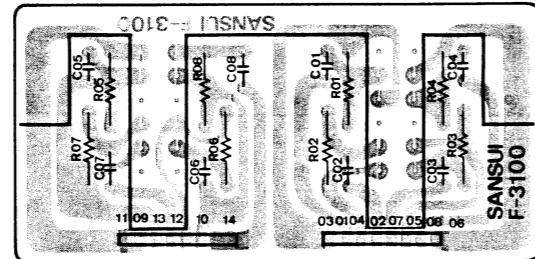


Parts List

Parts No.	Stock No.	Description
VR01, 02	1015360, 1	Volume 100k Ω C, bass & treble

4-7. F-3100 Turn Over Circuit Board

Conductor Side

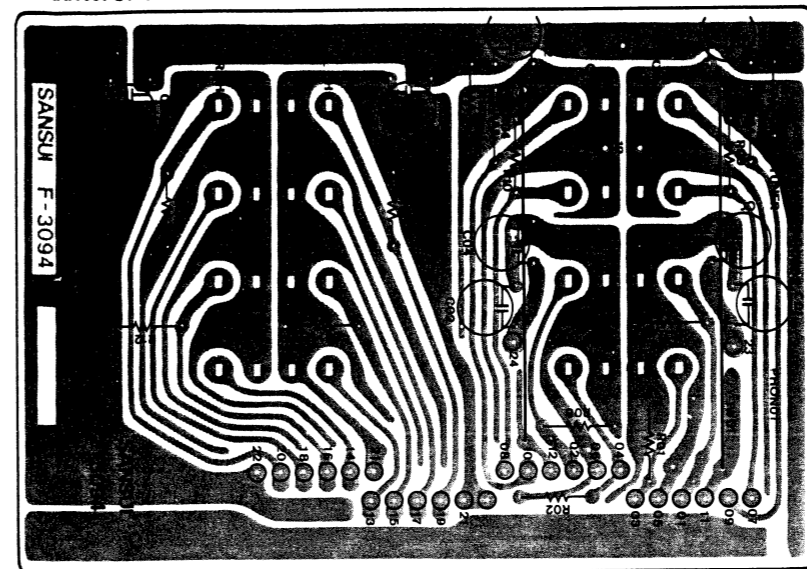


Parts List

Parts No.	Stock No.	Description
S 01	1131410	Push Switch, turn over

4-8. F-3094 Input Circuit Board

Conductor Side

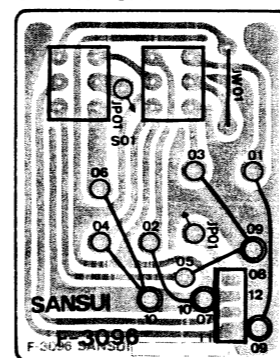


Parts List

Parts No.	Stock No.	Description
2200580		4P Input Terminal, tape
2200620		4P Input Terminal, phone tuner, aux

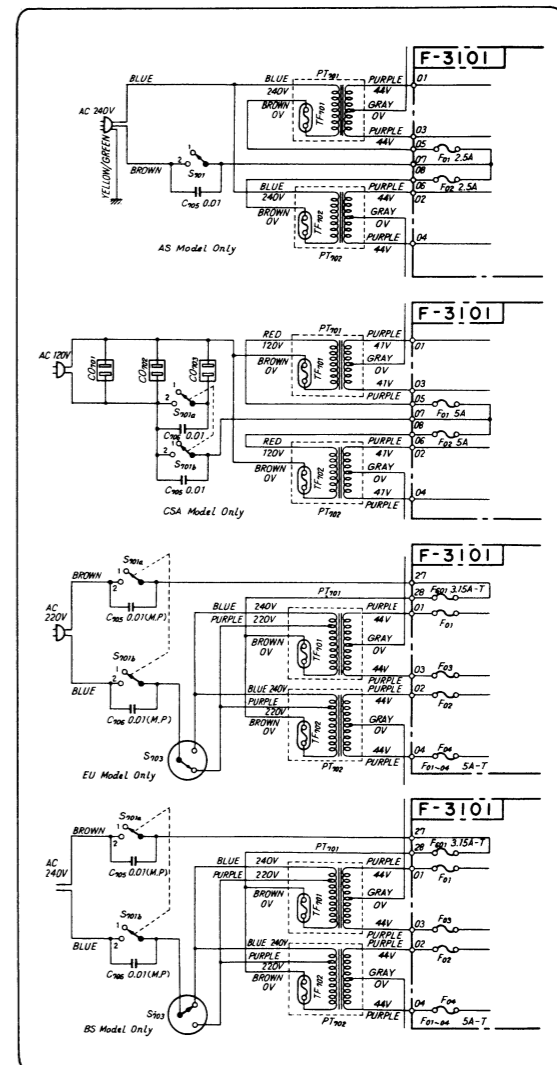
4-9. F-3096 Tape Copy Circuit Board

Conductor Side



Parts List

Parts No.	Stock No.	Description
S 01	1131400	Push Switch, tape play



F-3094

LEFT CHANNEL

PHONO 2
2.5mV/50KΩ

PHONO 1
2.5mV/50KΩ

TUNER
200mV/50KΩ

AUX
200mV/50KΩ

REC TAPE-1
PLAY
200mV/50KΩ

REC TAPE-2
L-PLAY
200mV/50KΩ

F-3095

RIGHT CHANNEL

PHONO 2

PHONO 1

TUNER

AUX

REC TAPE-1
PLAY

REC TAPE-2
L-PLAY

F-3096

POWER AMPLIFIER

2SD438(E,F)

2SB560(E,F)

2SC129(L,M)

2SC313(G,H)

2SC1845(E,F)

2SA992(E,F)

FE101,02

TR03-06

TR01,02,11,12

TR07-10

TR08

TR13

TR14

TR15

TR16

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TR18

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TR21

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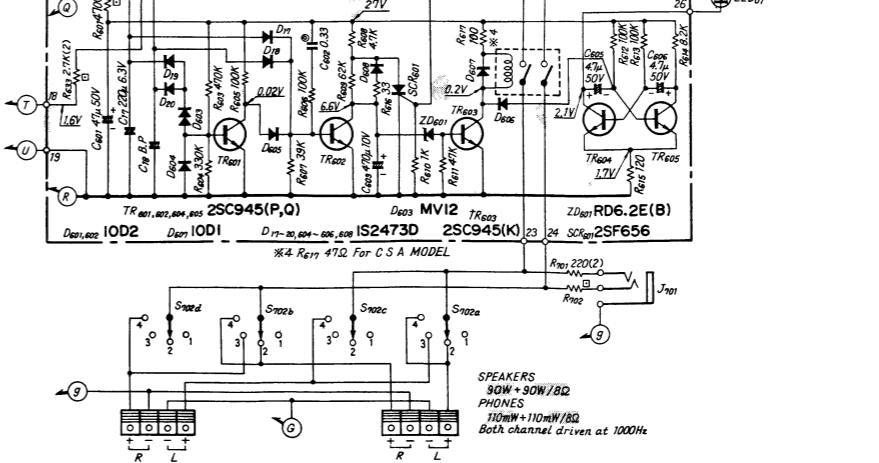
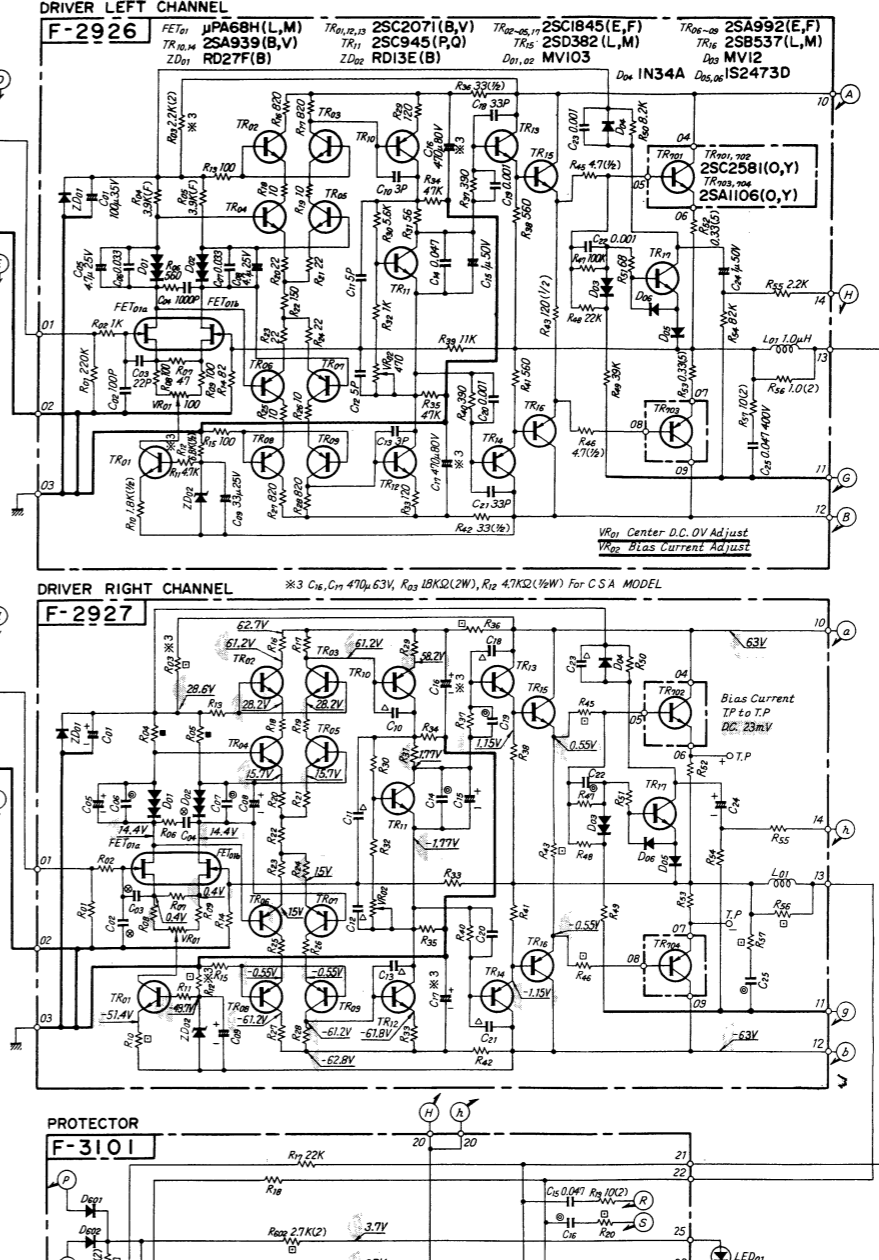
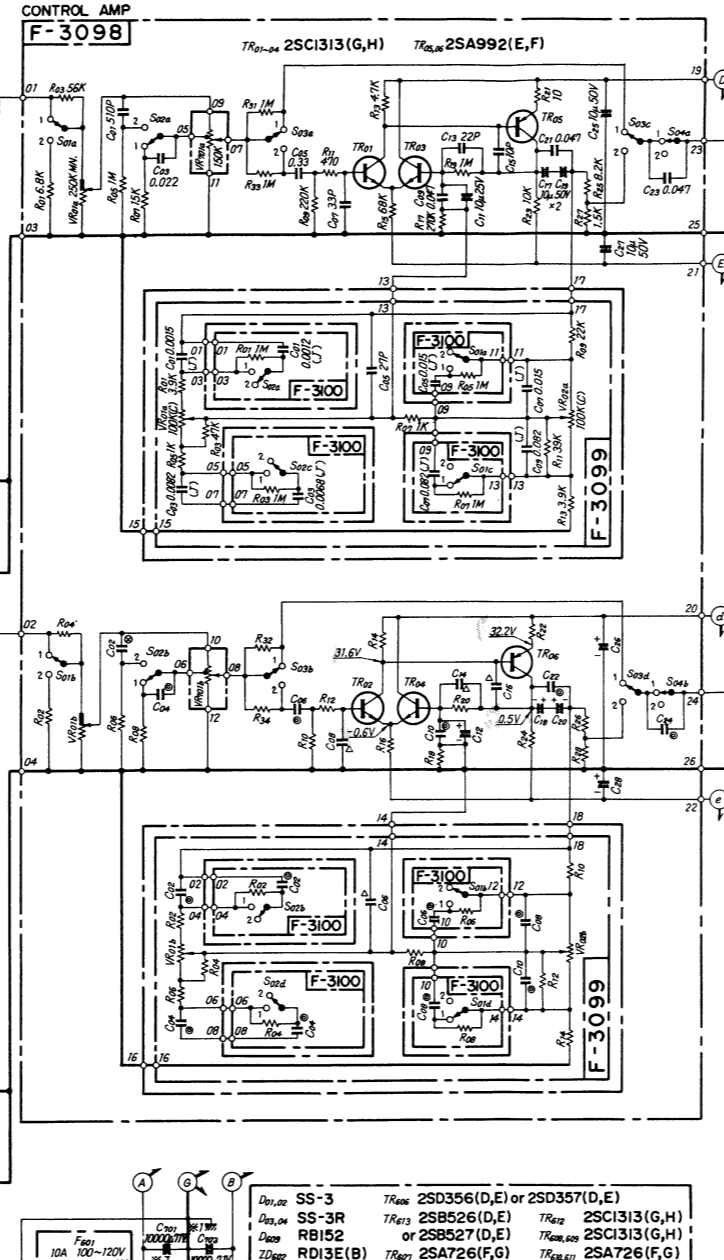
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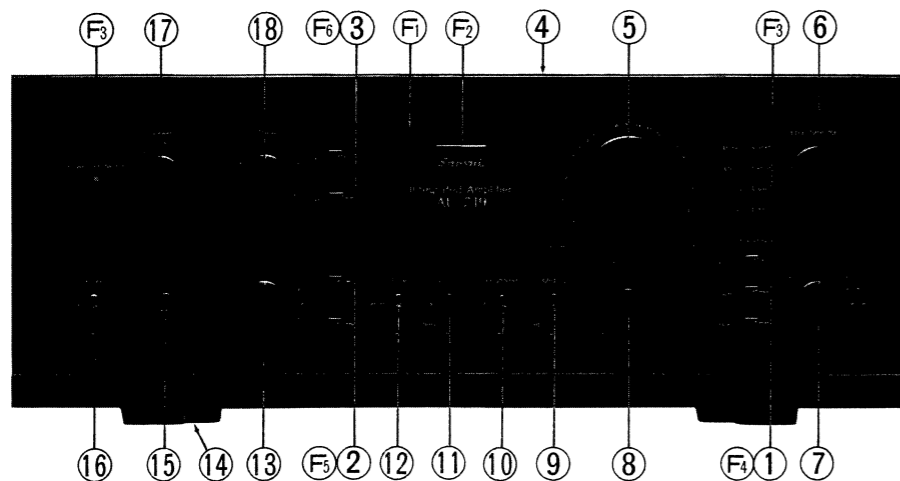
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2SC1845
2SA892
2SC945
- 2SA726
2SC1313
- 2SA939
2SC2071
- 2SD382
- 2SB637
- 2SF656
- MV12
MV103
- IS2473D
- RB152
- SS3
- μ PA68H
- 2SD356
2SD357
2SB826
2SB827
- 2SA1106
2SC2581
- 2SK129
- 1N34A
- RD6.2E
RD13
RD27F

-

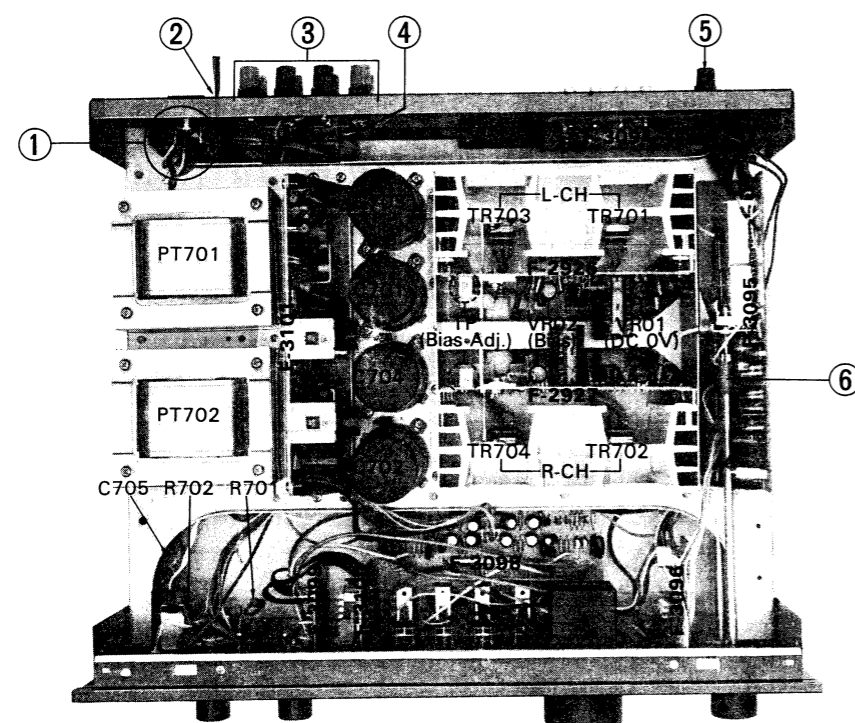
6

5. OTHER PARTS

5-1. Front View



5-2. Top View



Parts List <Front View>

No.	Stock No.	Description
F 1	7008390	Front Panel Ass'y
	5457540	Front Panel
	5048221	Masking Sheet
	5506880	Rubber Packing
F 2	5330660	Sansui Badge
	5152210	CS Ring
F 3	0319190	LED
F 4	5326620	Push Knob, tape play
	6906480	Spring
1	5286721	Knob Guide, tape play
	1131400	Push Switch, tape play
F 5	5326620	Push Knob, bass turn over
	6906480	Spring
2	5286721	Knob Guide, bass turn
	1131410	Push Switch turn over
F 6	5326620	Push Switch, treble turn over
	6906480	Spring
3	5286721	Knob Guide, treble turn over
	1131410	Push Switch, treble turn over
4	5006801	Bonnet
5	5318883	Knob, volume
6	1090450	Volume 150k Ω
	5319240	Knob, input selector
	1190420	Rotary Switch, input selector

Parts List <Top View>

No.	Stock No.	Description
7	5319250	Knob, tape copy
8	1190410	Rotary Switch, tape copy
	5319280	Knob Balance Volume
9	1015320, 1	Volume 250k Ω , balance
	5326612	Knob, muting
10	1171770	Lever Switch, muting
	5326612	Knob, loudness
11	1171770	Lever Switch, loudness
	5326612	Knob, subsonic
12	1171770	Lever Switch, subsonic
	5326612	Knob, tone
13	1171800	Lever Switch, tone
	5319250	Knob, bass
14	1015360, 1	Volume, 100k Ω C, bass
	5507350	Lag
15	2430290	Jack, phone
	5326612	Knob, power switch
16	1172000	Power Switch
	5319250	Knob, Speakers
17	1101930, 1	Rotary Switch, speakers
	5319250	Knob, treble
18	1015360, 1	Volume 100k Ω C, treble

Note: Parts numbered with F is included in Front panel Ass'y.

7. PACKING LIST

Stock No.	Description
1115740	Wiring Diagram
1021150	Operating Instructions
1001200	Carrying Case



8. ACCESSORY PARTS LIST

Stock No.	Description
5238260	Schematic Diagram
9204490	Operating Instructions
5338340	Rack Mounting Adaptor

Sansui

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